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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,665	02/14/2002	Garrett Andrew Smith		2982

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EXAMINER

CHARLES, MARCUS

ART UNIT PAPER NUMBER

3682

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

10/077,665

Applicant(s)

SMITH, GARRETT ANDREW

Examiner

Marcus Charles

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 01-14 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

This action is responsive to the amendment and response filed, 12-24-2004, which has been entered. Claims 1-12 are currently pending.

#### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the tool interface means of the nut faces outside the crank assembly" as in claim 11, respectively, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. It should be noted that the crank assembly includes the crank arm and the tool interface means does face the outside of the crank but inside the crank.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-2, 4-5, 7-8, 10 and 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO(9308071) in view of Kirrish(4,310,273). WO(9308071) discloses a fastener assembly (107,109) for attaching a chainring to a bicycle, the device

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comprising a nut (107) comprising an internally threaded cylinder, an external flange (not labeled) on one end and a hole in the cylinder; a bolt (109) threadably engages the nut and comprising a tool interface (not labeled) formed inside the shaft. WO(9308071) does not disclose a tool interface means formed inside the cylinder. Kirrish discloses a fastener system (20) comprising a nut (34) having a threaded cylinder (44) and a tool interface means (58) formed in the cylinder in order to facilitate proper alignment between the bolt and nut thus minimizing cross-threading before tightening the fastening device and to allow quick and easy removal without the bolt and nut turning in unison. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the fastening device of WO(9308071) so that the nut has a tool interface in the threaded cylinder in view of Kirrish in order to facilitate proper alignment between the bolt and nut thus minimizing cross-threading before tightening the fastening device and to allow quick release and by fastening/turning the bolt and nut simultaneously and to allow quick and easy removal without the bolt and nut turning in unison.

In claim 2, it is apparent that the tool interface (56, 58) are of the same size and shape.

In claim 10, not the tool interface of the nut faces the outside of the crank handle

4. Claims 3, 6 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over WO(9308071) in view of Kirrish. WO(9308071) and Kirrish do disclose that the tool interface means are different in size. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the fastening device of WO(9308071) in

view of Kirrish so that the tool interfaces are of different size, since such a modification would have been a matter of design choice, and such a modification would involve a mere change in weight and cost of manufacturing. A change in size is generally recognized as being within the level of ordinary skill in the art. In *Rose*, 105 USPQ 237 (CCPA 1955)

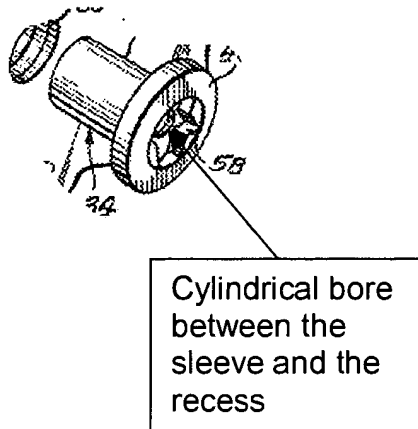
5. Claims 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO(9308071) in view of Kirrish. WO(9308071) in view of Kirrish do not disclose the nut toll inter face means faces the outside of the crank handle. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the fastening device of WO(9308071) so that the too interface means faces the outside of the crank handle, since this involves rearranging the nut and bolt to face a different direction and it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

### ***Response to Arguments***

6. Applicant's arguments filed 12-24-2004 have been fully considered but they are not persuasive. Applicant contended that the bolt of Kirrish has a head with a tool interface means and the tool interface does not form part of the cylinder of the bolt. In response, in figure 1, it can be seen that the nut (34) has a cylindrical hole passing through the sleeve (50) and the head (48). The cylindrical hole has three sections; one section is in the sleeve, another is in the tool recess (58) of the head and a smaller section joining the hole in the sleeve and the tool recess. In addition, Kirrish clearly discloses that the nut comprise a head portion and a sleeve portion and a bore 52

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extends through the sleeve, which means that the hole extends beyond the sleeve. See attached drawing section below.



Therefore, the rejection of WO(9308071) in view of Kirrish is proper. In addition Kirrish clear shows the nut as claimed.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (703) 305-6877. The examiner can normally be reached on Monday -Thursday 7:30 am-600 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marcus Charles  
Primary Examiner  
Art Unit 3682  
March 05,2004